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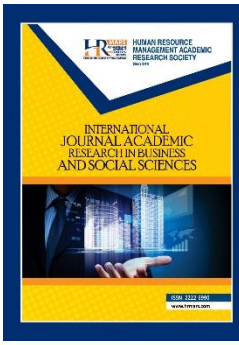
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Abstract
In the recent year, Computational Thinking (CT) has gained much attention in educational research and practice. CT skills can be taught via computing activities that involve different types of programming tasks or via Unplugged Programming Activities (UPA) that do not involve the use of digital devices to represent and deliver programming concepts. UPA is an appropriate teaching approach for schools that do not have sufficient technological infrastructure. Studies have shown the effectiveness of UPA in developing CT skills and is comparable to the technology driven learning method. The aim of this study is to explore the experience of primary school students on their learning of algorithms, which is one of the CT skills, through the UPA method. A total of 31 students from a rural primary school were exposed to the learning about the algorithm concept (an aspect of CT skills) via UPA learning materials. From the responses gathered through interviewing nine of these participants, four main themes (Good Learning Quality, Much Knowledge, Easy and Useful) related to their learning experiences have been derived. These positive themes provide evidence on the appropriateness of employing UPA for teaching the algorithm aspect of CT, particularly for schools located in areas with limited access to adequate technological infrastructure. This study may serve as a reference in establishing a comprehensive UPA module for teaching algorithms aspect of CT skills.
Keywords: Computational Thinking, Unplugged Programming Activities, Algorithms

Introduction

The term Computational Thinking (CT) was first introduced in 2006 (Selby, 2013). CT skills refer to a collection of mental tools that enables an individual to solve problems more effectively by imitating a computer scientist's way of thinking (Wing, 2006). It is an approach for solving problems, designing systems and comprehending human behaviour that draws on the fundamental concepts of programming (Wing, 2006). Over the past decade, CT has gained much attention in educational research and practice (Wright, Rich, & Leatham, 2012; Shute, Sun & Asbell-Clarke, 2017). Many